AMENDMENTS TO THE CLAIMS

1. (Previously Presented) An inertial sensor adapted to be attached to a body comprising:

a base member;

a single sense element disposed on said base member, said sense element operable to sense a change in a motion parameter of said body; and

a plurality of signal conditioning circuits connected to said single sense element, said signal conditioning circuits adapted to be connected to at least one control system, said signal conditioning circuits operable to generate an electrical signal that is a function of said change in a motion parameter of said body.

2. (Previously Presented) The inertial sensor according to claim 1 wherein said base member is a silicon wafer.

3. (Previously Presented) The inertial sensor according to claim 2 wherein said signal conditioning circuits are integral with said silicon wafer and said sense elements.

4. (Previously Presented) The inertial sensor according to claim 2 wherein said signal conditioning circuits are located remotely from said silicon wafer and said sense elements.

5. (Previously Presented) The inertial sensor according to claim 1 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said signal conditioning circuits into a single output signal.

6. (Previously Presented) The inertial sensor according to claim 1 wherein said sense element is an accelerometer.

7. (Currently Amended) The inertial sensor according to claim 6 wherein a first one of said signal conditioning circuits is calibrated to sense a first range of acceleration change and a second one of said signal conditioning circuits is calibrated to sense a second range of acceleration change, said second range of acceleration change being different from said first range of acceleration change.

8. (Currently Amended) The inertial sensor according to claim 1 wherein said sense element is ~~a yaw sensor~~ an angular rate sensor.

9. (Currently Amended) The inertial sensor according to claim 8 wherein a first one of said signal conditioning circuits is calibrated to sense a first range of angular velocity change and a second one of said signal conditioning circuits is calibrated to sense a second range of angular velocity change, said second range of angular velocity change being different from said first range of angular velocity change.

10. (New) The inertial sensor according to claim 7 wherein said base member is a silicon wafer.

11. (New) The inertial sensor according to claim 10 wherein said signal conditioning circuits are integral with said silicon wafer and said sense element.

12. (New) The inertial sensor according to claim 11 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

13. (New) The inertial sensor according to claim 10 wherein said signal conditioning circuits are located remotely from said silicon wafer and said sense element.

14. (New) The inertial sensor according to claim 9 wherein said base member is a silicon wafer.

15. (New) The inertial sensor according to claim 14 wherein said signal conditioning circuits are integral with said silicon wafer and said sense element.

16. (New) The inertial sensor according to claim 15 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

17. (New) The inertial sensor according to claim 9 wherein said signal conditioning circuits are located remotely from said silicon wafer and said sense element.